

MONTHLY NOTICES
OF THE
ROYAL ASTRONOMICAL SOCIETY

CONTAINING
PAPERS PUBLISHED IN THE PERIOD
1984 MAY TO JUNE

VOL. 208

EDITORIAL BOARD

DR R. D. CANNON, ROYAL OBSERVATORY, EDINBURGH
PROFESSOR A. C. FABIAN, INSTITUTE OF ASTRONOMY, CAMBRIDGE
DR C. JORDAN, DEPARTMENT OF THEORETICAL PHYSICS, OXFORD
PROFESSOR B. E. J. PAGEL, ROYAL GREENWICH OBSERVATORY
DR J. R. SHAKESHAFT, MULLARD RADIO ASTRONOMY OBSERVATORY, CAMBRIDGE
DR R. S. STOBIE, ROYAL OBSERVATORY, EDINBURGH
DR M. G. SMITH, ROYAL OBSERVATORY, EDINBURGH
PROFESSOR R. J. TAYLER, UNIVERSITY OF SUSSEX ASTRONOMY CENTRE

Published for the Royal Astronomical Society by
Blackwell Scientific Publications
Oxford London Edinburgh Boston Palo Alto Melbourne

L

3

4

I

AUTHOR INDEX

- ABRAMOWICZ MAREK A., CURIR ANNA, SCHWARZENBERG-CZERNY ALEXANDER, WILSON R.E.
Self-gravity and the global structure of accretion discs..... 279
- ADAMS D.J.
see EATON N.
- ADE P.A.R.
see GEE G.
- AGRAWAL P.C.
see SINGH K.P.
- AGRAWAL P.C., SINGH K.P., RIEGLER G.R., STERN R.A. An X-ray survey of beta
Cephei stars..... 845
- AITKEN DAVID K.
see ROCHE PATRICK F.
- AITKEN DAVID K., ROCHE PATRICK F. A study of the unidentified dust emission
features near 10 μ 751
- ALLEN A.J., HUGHES P.A. The Rayleigh-Taylor instability in astrophysical fluids.. 609
- ARNAUD K.A.
see FABIAN A.C.
- ATHERTON PAUL D.
see TAYLOR KEITH
- AXON D.J.
see BAILEY J.
- BAILEY J., HOUGH J.H., AXON D.J. Imaging and polarimetry of the Galactic Centre
in the near-infrared..... 661
- BALL ROGER
see HUNTER JAMES H.
- BANHATTI D.G. Collimation of extragalactic jets: evidence from hotspots..... 7P
- BARNES JOSHUA N-body studies of compact groups of galaxies dominated by dark
matter..... 873
- BELL S.A., HILDITCH R.W., KING D.J. Asymmetric light curves of the contact
binary AB Andromedae..... 123
- BETTWIESER ERICH, SUGIMOTO DAIICHIRO Post-collapse evolution and gravothermal
oscillation of globular clusters..... 493
- BIRKINSHAW M. The Kelvin-Helmholtz instability for relativistic particle beams -
I. Stability analyses in the time and space domains for vortex-sheet flows..... 887
- BJORNSSON CLAES-INGVAR Pulsar polarization as a direct consequence of the
emission process..... 293
- BLACKMAN C.P., VAN MOORSEL G.A. Mass-to-light distributions for binary spiral
galaxies..... 91
- BLACKWELL D.E.
see BOOTH A.J.
- BLAND J.
see DANZIGER I.J.
- BLAND J.
see FOSBURY R.A.E.
- BOKSENBERG A.
see PENSTON M.V.
- BOKSENBERG A.
see DANZIGER I.J.
- BOOTH A.J., BLACKWELL D.E., PETFORD A.D., SHALLIS M.J. Measurement of relative
oscillator strengths for MnI. Transitions from levels in the range $0\text{eV} < \chi < \sim 3\text{eV}$. 147
- BOOTH R.S.
see NORRIS R.P.
- BRAY IGOR Spheroidal gravitational lenses..... 511
- BREEDON L.M.
see TURNER M.J.L.
- BROMAGE G.E.
see HARRIS A.W.
- BRUNT C.C.
see RUCINSKI S.M.
- BUTLER K., MENDOZA C. Collisional excitation rates for transitions between the
fine structure levels of the ground term of Ne^{14} 17P
- CARROLL RUSSELL W.
see STOECKLEY THOMAS R.

Author Index

CARTER D.	
see SHARPLES R.M.	
CHEN JIAN-SHENG, MORTON DONALD C. Further spectroscopic observations of the QSO PKS 0528-250.....	167
CHENG F.Z., DANESE L., DE ZOTTI G., LUCCHINI F. The ratio of X-ray-to-optical luminosity for active galactic nuclei.....	799
CLUBE S.V.M., NAPIER W.M. Comet capture from molecular clouds: a dynamical constraint on star and planet formation.....	575
COHEN R.J. Formaldehyde in the W3 molecular clouds.....	101
COOKE D.J.	
see KOMESAROFF M.M.	
CURIR ANNA	
see ABRAMOWICZ MAREK A.	
DANESE L.	
see CHENG F.Z.	
DANZIGER I.J., FOSBURY R.A.E., GOSS W.M., BLAND J., BOKSENBURG A. Very extended ionized gas in radio galaxies - II. An optical and radio study of PKS 0349-27.....	589
DANZIGER I.J.	
see FOSBURY R.A.E.	
DE VEGT C.	
see NICHOLSON W.	
DE ZOTTI G.	
see CHENG F.Z.	
DEIGHTON D.W.	
see LIGHTFOOT J.F.	
DIAMOND P.J.	
see NORRIS R.P.	
DIAZ A.I., TOSI M. The chemical evolution of spiral galaxies: the Galaxy, M31, M33, M83 and M101.....	365
EATON N., ADAMS D.J., GILES A.B. The 2.2 μ m stellar distribution in the galactic plane.....	241
EMERSON J.P.	
see GEE G.	
EVANS T.LLOYD	
see WHITELOCK P.A.	
EVANS T.LLOYD M and S stars in LMC globular clusters.....	447
FABIAN A.C., NULSEN P.E.J., ARNAUD K.A. Diffuse Ly alpha emission around NGC 1275	179
FABIAN A.C.	
see NULSEN P.E.J.	
FABIAN A.C.	
see TAKEDA H.	
FABIAN A.C.	
see MCGLYNN T.A.	
FABIAN ANDREW C.	
see ITOH HIROSHI	
FALLE S.A.E.G., GARLICK A.R., PIDSLEY P.H. Strong explosions in plane stratified media.....	925
FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R. BVJHK observations of the dwarf Cepheid SZ Lynx.....	853
FONG R.	
see SHANKS T.	
FORBES DOUGLAS	
see SCHMIDT EDWARD G.	
FOSBURY R.A.E.	
see PENSTON M.V.	
FOSBURY R.A.E.	
see DANZIGER I.J.	
FOSBURY R.A.E., TADHUNTER C.N., BLAND J., DANZIGER I.J. Very extended ionized gas in radio galaxies - III. [OIII] emission along the radio axis of PKS 0634-20..	955
FOX KEN, WILLIAMS IWAN P., HUGHES DAVID W. The 'Geminid' asteroid (1983 TB) and its orbital evolution.....	11P
FURNISS I.	
see LIGHTFOOT J.F.	
GALAS C.M.F.	
see VENKATESAN D.	
GARLICK A.R.	
see FALLE S.A.E.G.	

Author Index

GEE G., EMERSON J.P., ADE P.A.R., ROBSON E.I., NOLT I.G. Submillimetre observations of the cold dust halo of NGC 7027.....	517
GILES A.B.	
see EATON N.	
GLENCROSS W.M.	
see LIGHTFOOT J.F.	
GOSS W.M.	
see DANZIGER I.J.	
GOTTESMAN STEPHEN T.	
see HUNTER JAMES H.	
GRAHAM D.A.	
see NORRIS R.P.	
HARRIS A.W., BROMAGE G.E. The abundance of interstellar chlorine in the galaxy... 941	
HAWARDEN T.G.	
see SHARPLES R.M.	
HAYNES R.F.	
see SLEE O.B.	
HILDITCH R.W.	
see BELL S.A.	
HILDITCH R.W., KING D.J., HILL GRAHAM, POECKERT R. Contact and near-contact binary systems - I. FT Lupi.....	135
HILL GRAHAM	
see HILDITCH R.W.	
HILLDRUP K.	
see SMARUP G.	
HILLS R.E.	
see MARTIN H.M.	
HIRST C.J.	
see LIGHTFOOT J.F.	
HOUGH J.H.	
see BAILEY J.	
HOWARTH IAN D., PRINJA R.K., WILLIS A.J. Observations of narrow absorption components in the ultraviolet spectrum of Zeta Ophiuchi.....	525
HUGHES DAVID W.	
see FOX KEN	
HUGHES P.A.	
see ALLEN A.J.	
HUNTER JAMES H., BALL ROGER, GOTTESMAN STEPHEN T. Exact solutions for a generalized Mestel disc, and for truncated Toomre discs.....	1
ISAACMAN RICHARD Two-frequency VLA observations of compact planetary nebulae.....	399
ITOH HIROSHI, FABIAN ANDREW C. The effect of a circumstellar medium on the evolution of young remnants of Type II supernovae.....	645
JAMESON R.F.	
see FERNLEY J.A.	
JEFFREYS HAROLD Constants related to the moon.....	229
JENNINGS R.E.	
see LIGHTFOOT J.F.	
JUPEN C. Identifications of FeXVII and NiXIX in solar flares based on isoelectronic extrapolations.....	1P
KASHLINSKY A. Dynamical friction and galaxy rotation - should mergers lead to slow rotation?.....	623
KILKENNY D., WHITTET D.C.B. Infrared photometry and broadband flux distributions of southern R Coronae Borealis stars.....	25
KILKENNY D.	
see WHITELOCK P.A.	
KILKENNY D., LYNAS-GRAY A.E. A revised ephemeris for the pulsating hydrogen-deficient star BD +13° 3224 (V652 Her).....	673
KING D.J.	
see BELL S.A.	
KING D.J.	
see HILDITCH R.W.	
KOMESAROFF M.M., ROBERTS J.A., MILNE D.K., RAYNER P.T., COOKE D.J. Circular and linear polarization variations of compact radio sources.....	409
LACEY CEDRIC G. The influence of massive gas clouds on stellar velocity dispersions in galactic discs.....	687
LEAHY D.A.	
see VENKATESAN D.	

Author Index

LEAHY J.P.	3C 465: dynamics of a wide-angle-tail radio source.....	323
LIGHTFOOT J.F., DEIGHTON D.W., FURNISS I., GLENCROSS W.M., HIRST C.J., JENNINGS R.E., POULTER G.	Far-infrared photometry of selected sources in the W28 region: M8, W28A2, W28SMR (G6.6-0.1), G7.5+0.1 and G8.1+0.2.....	197
LIVIO MARIO, SOKER NOAM	Star-planet systems as possible progenitors of cataclysmic binaries.....	763
LIVIO MARIO, SOKER NOAM	On the masses of the white dwarfs in cataclysmic variables.....	783
LOCK T.D., ROWAN-ROBINSON M.	Erratum: Predicted source counts for normal and active galaxies at 10-100 μ m.....	239
LONG K.		
see VENKATESAN D.		
LONGMORE A.J.		
see SHARPLES R.M.		
LONSDALE C.J.	Kiloparsec scale structure in the hotspots of 3C 196.....	545
LOPEZ J.ALBERTO	The remarkable blue excess in the spectrum of the cometary nebula PP85.....	37P
LUCCHIN F.		
see CHENG F.Z.		
LYNAS-GRAY A.E.		
see KILKENNY D.		
LYNDS C.R.		
see SCHECHTER PAUL L.		
MACGILLIVRAY H.T.		
see SHANKS T.		
MANNION M.D., SCARROTT S.M.	An optical polarization study of NGC 2068.....	905
MARTIN H.M., SANDERS D.B., HILLS R.E.	CO emission from fragmentary molecular clouds: a model applied to observations of M17 SW.....	35
MATVEYENKO L.I.		
see NORRIS R.P.		
MCCALL MARSHALL L.	Emission coefficients for gaseous nebulae: three-level atom approximations.....	253
MCGLYNN T.A., FABIAN A.C.	Collisions between clusters of galaxies.....	709
MENDOZA C.		
see BUTLER K.		
MENZIES J.W.		
see WHITELOCK P.A.		
MIKKOLA SEPPO	Binary encounters - III. Fly-bys.....	75
MILLER ROBERT D.		
see STOECKLEY THOMAS R.		
MILNE D.K.		
see KOMESAROFF M.M.		
MILOGRADOV-TURIN JELENA	Radio observations of the north equatorial polar cap at 38 MHz.....	379
MORGAN D.H.	Planetary nebulae in the Magellanic Clouds.....	633
MORTON DONALD C.		
see CHEN JIAN-SHENG		
MURRAY C.A.		
see NICHOLSON W.		
NAPIER W.M.		
see CLUBE S.V.M.		
NARANAN S.		
see VENKATESAN D.		
NICHOLSON W., PENSTON MARGARET J., MURRAY C.A., DE VEGT C.	Second Cape Photographic Catalogue 1950.0 - I. Provisional catalogue of positions of stars in the Cape Zone, -40° to -52°	911
NOLT I.G.		
see GEE G.		
NORRIS R.P., BOOTH R.S., DIAMOND P.J., NYMAN L.-A., GRAHAM D.A., MATVEYENKO L.I.	VLBI observations of circumstellar shells around two OH/IR stars.....	435
NULSEN P.E.J.		
see FABIAN A.C.		
NULSEN P.E.J., STEWART G.C., FABIAN A.C.	X-ray cooling flows in isolated elliptical galaxies.....	185
NULSEN P.E.J.		
see TAKEDA H.		
NYMAN L.-A.		
see NORRIS R.P.		

Author Index

PAPALOIZOU J.C.B., PRINGLE J.E. The dynamical stability of differentially rotating discs with constant specific angular momentum.....	721
PENNY A.J. The age of the globular cluster NGC 288.....	559
PENSTON M.V., FOSBURY R.A.E., BOKSENBERG A., WARD M.J., WILSON A.S. The Fe ^K region in active galactic nuclei.....	347
PENSTON MARGARET J. see NICHOLSON W.	
PETFORD A.D. see BOOTH A.J.	
PIDSLEY P.H. see FALLE S.A.E.G.	
POECKERT R. see HILDITCH R.W.	
POULTER G. see LIGHTFOOT J.F.	
PRINGLE J.E. see RUCINSKI S.M.	
PRINGLE J.E. see PAPALOIZOU J.C.B.	
PRINJA R.K. see HOWARTH IAN D.	
RAYNER P.T. see KOMESAROFF M.M.	
RIEGLER G.R. see SINGH K.P.	
RIEGLER G.R. see AGRAWAL P.C.	
ROBERTS J.A. see KOMESAROFF M.M.	
ROBSON E.I. see GEE G.	
ROCHE PATRICK F., AITKEN DAVID K. An investigation of the interstellar extinction - I. Towards dusty WC Wolf-Rayet stars.....	481
ROCHE PATRICK F. see AITKEN DAVID K.	
ROWAN-ROBINSON M. see LOCK T.D.	
RUCINSKI S.M., BRUNT C.C., PRINGLE J.E., VILHU O. IUE observations of two extremes among contact binaries: AW Ursae Majoris and SW Lacertae.....	309
SAKIA D.J. Extended radio jets and compact cores in quasars.....	231
SANCISI R. see SCHECHTER PAUL L.	
SANDERS D.B. see MARTIN H.M.	
SCALES B.G.F., ZHAO J.L. Results of the Herstmonceux parallax programme - III....	427
SCARROTT S.M. see MANNION M.D.	
SCHECHTER PAUL L., SANCISI R., VAN WOERDEN HUGO, LYNDY C.R. The spindle-like galaxies UGC 7576 and II Zw 73.....	111
SCHMIDT EDWARD G., FORBES DOUGLAS Rotational velocities of stars in IC 4756 and the calibration of intermediate band photometry for A stars.....	83
SCHWARZENBERG-CZERNY A. Radiation of accretion discs: the eclipses.....	57
SCHWARZENBERG-CZERNY ALEXANDER see ABRAHOWICZ MAREK A.	
SHALLIS M.J. see BOOTH A.J.	
SHANKS T., STEVENSON P.R.F., FONG R., MACGILLIVRAY H.T. Erratum: Galaxy number counts and cosmology.....	719
SHARPLES R.M., LONGMORE A.J., HAWARDEN T.G., CARTER D. NGC 7172: an obscured active nucleus.....	15
SHERRINGTON M.R. see FERNLEY J.A.	
SINGH K.P., AGRAWAL P.C., RIEGLER G.R. Binary modulation and transient periodic variations in X-ray emission from the AM Her binary H 0139-68.....	679
SINGH K.P. see AGRAWAL P.C.	
SINHA R.P. see SWARUP G.	

Author Index

SLEE O.B., HAYNES R.F., WRIGHT ALAN E.	New southern radio binaries.....	865
SMITH R.J.		
see WOLSTENCROFT R.D.		
SOKER NOAM		
see LIVIO MARIO		
SOKER NOAM		
see LIVIO MARIO		
STERN R.A.		
see AGRAWAL P.C.		
STEVENSON P.R.F.		
see SHANKS T.		
STEWART G.C.		
see NULSEN P.E.J.		
STOECKLEY THOMAS R., CARROLL RUSSELL W., MILLER ROBERT D.	Absorption line profiles for 39 rapidly rotating stars.....	459
SUGIMOTO DAIICHIRO		
see BETTWIESER ERICH		
SWARUP G., SINHA R.P., HILLDRUP K.	Hotspots and radio lobes of quasars.....	813
TADHUNTER C.N.		
see FOSBURY R.A.E.		
TAKEDA H., NULSEN P.E.J., FABIAN A.C.	Ram pressure stripping in a changing environment.....	261
TAYLOR KEITH, ATHERTON PAUL D.	TAURUS observations of the ring galaxy in Vela....	601
TOSI M.		
see DIAZ A.I.		
TUCHMAN Y.	The termination of the asymptotic giant branch phase imposed by helium shell flashes - description and conclusions.....	215
TURNER M.J.L., BREEDON L.M.	Spectral and temporal features in bursts from 2S 1636-536 observed with EXOSAT.....	29P
VAN MOORSEL G.A.		
see BLACKMAN C.P.		
VAN WOERDEN HUGO		
see SCHECHTER PAUL L.		
VENKATESAN D., LEAHY D.A., GALAS C.M.F., NARANAN S., LONG K.	Einstein X-ray observations of the supernova remnant HB3.....	25P
VILHU O.		
see RUCINSKI S.M.		
WADE RICHARD A.	A double grid of accretion disc model spectra for cataclysmic variable stars.....	381
WARD M.J.		
see PENSTON M.V.		
WHITELOCK P.A., MENZIES J.W., EVANS T.LLOYD, KILKENNY D.	The infrared variability and nature of symbiotic stars - VI.Recent variations of RX Puppis....	161
WHITTET D.C.B.		
see KILKENNY D.		
WILLIAMS IWAN P.		
see FOX KEN		
WILLIS A.J.		
see HOWARTH IAN D.		
WILSON A.S.		
see PENSTON M.V.		
WILSON R.E.		
see ABRAMOWICZ MAREK A.		
WOLSTENCROFT R.D., SMITH R.J.	High precision spectropolarimetry of stars and planets - III.The wavelength dependence of interstellar polarization.....	461
WRIGHT ALAN E.		
see SLEE O.B.		
ZHAO J.L.		
see SCALES B.G.F.		

SUBJECT INDEX

ABUNDANCES OF THE ELEMENTS

The abundance of interstellar chlorine in the galaxy, HARRIS A.W., BROMAGE G.E..... 941

ACCRETION AND ACCRETION DISKS

Radiation of accretion discs: the eclipses, SCHWARZENBERG-CZERNY A..... 57
Self-gravity and the global structure of accretion discs, ABRAMOWICZ MAREK A.,
CURIR ANNA, SCHWARZENBERG-CZERNY ALEXANDER, WILSON R.E..... 279
A double grid of accretion disc model spectra for cataclysmic variable stars, WADE
RICHARD A..... 381
The dynamical stability of differentially rotating discs with constant specific
angular momentum, PAPALOIZOU J.C.B., PRINGLE J.E..... 721

ASTEROIDS

The 'Geminid' asteroid (1983 TB) and its orbital evolution, FOX KEN, WILLIAMS IWAN
P., HUGHES DAVID W..... 11P

ASTROMETRY

Results of the Herstmonceux parallax programme - III, SCALES B.G.F., ZHAO J.L..... 427
Second Cape Photographic Catalogue 1950.0 - I. Provisional catalogue of positions
of stars in the Cape Zone, -40° to -52°, NICHOLSON W., PENSTON MARGARET J.,
MURRAY C.A., DE VEGT C..... 911

BL LAC OBJECTS

Circular and linear polarization variations of compact radio sources, KOMESAROFF
M.M., ROBERTS J.A., MILNE D.K., RAYNER P.T., COOKE D.J..... 409

CELESTIAL MECHANICS

Exact solutions for a generalized Mestel disc, and for truncated Toomre discs,
HUNTER JAMES H., BALL ROGER, GOTTESMAN STEPHEN T..... 1
Binary encounters - III. Fly-bys, MIKKOLA SEPPO..... 75
Constants related to the moon, JEFFREYS HAROLD..... 229
Post-collapse evolution and gravothermal oscillation of globular clusters,
BETTWISER ERICH, SUGIMOTO DAIICHIRO..... 493
Dynamical friction and galaxy rotation - should mergers lead to slow rotation?,
KASHLINSKY A..... 623
Collisions between clusters of galaxies, MCGLYNN T.A., FABIAN A.C..... 709
N-body studies of compact groups of galaxies dominated by dark matter, BARNES
JOSHUA..... 873

COMETS

Comet capture from molecular clouds: a dynamical constraint on star and planet
formation, CLUBE S.V.M., NAPIER W.M..... 575
The 'Geminid' asteroid (1983 TB) and its orbital evolution, FOX KEN, WILLIAMS IWAN
P., HUGHES DAVID W..... 11P

COSMOLOGY

Erratum: Galaxy number counts and cosmology, SHANKS T., STEVENSON P.R.F., FONG R.,
MACGILLIVRAY H.T..... 719

GALACTIC CENTRE

Imaging and polarimetry of the Galactic Centre in the near-infrared, BAILEY J.,
HOUGH J.H., AXON D.J..... 661

GALACTIC STRUCTURE AND STELLAR DYNAMICS

Exact solutions for a generalized Mestel disc, and for truncated Toomre discs,
HUNTER JAMES H., BALL ROGER, GOTTESMAN STEPHEN T..... 1
Mass-to-light distributions for binary spiral galaxies, BLACKMAN C.P., VAN MOORSEL
G.A..... 91
The spindle-like galaxies UGC 7576 and II Zw 73, SCHECHTER PAUL L., SANCISI R.,
VAN WOERDEN HUGO, LYNDS C.R..... 111
The 2.2 μ m stellar distribution in the galactic plane, EATON N., ADAMS D.J., GILES
A.B..... 241

Subject Index

The chemical evolution of spiral galaxies: the Galaxy, M31, M33, M83 and M101, DIAZ A.I., TOSI M.....	365
TAURUS observations of the ring galaxy in Vela, TAYLOR KEITH, ATHERTON PAUL D.....	601
The influence of massive gas clouds on stellar velocity dispersions in galactic discs, LACEY CEDRIC G.....	687
 GALAXIES	
Mass-to-light distributions for binary spiral galaxies, BLACKMAN C.P., VAN MOORSEL G.A.....	91
The spindle-like galaxies UGC 7576 and II Zw 73, SCHECHTER PAUL L., SANCISI R., VAN WOERDEN HUGO, LYNDIS C.R.....	111
X-ray cooling flows in isolated elliptical galaxies, NULSEN P.E.J., STEWART G.C., FABIAN A.C.....	185
Erratum: Predicted source counts for normal and active galaxies at 10-100 μ m, LOCK T.D., ROWAN-ROBINSON M.....	239
The chemical evolution of spiral galaxies: the Galaxy, M31, M33, M83 and M101, DIAZ A.I., TOSI M.....	365
TAURUS observations of the ring galaxy in Vela, TAYLOR KEITH, ATHERTON PAUL D.....	601
Erratum: Galaxy number counts and cosmology, SHANKS T., STEVENSON P.R.F., FONG R., MACGILLIVRAY H.T.....	719
 GALAXIES - ACTIVE	
NGC 7172: an obscured active nucleus, SHARPLES R.M., LONGMORE A.J., HAWARDEN T.G., CARTER D.....	15
3C 465: dynamics of a wide-angle-tail radio source, LEAHY J.P.....	323
Very extended ionized gas in radio galaxies - II. An optical and radio study of PKS 0349-27, DANZIGER I.J., FOSBURY R.A.E., GOSS W.M., BLAND J., BOKSENBURG A.....	589
Very extended ionized gas in radio galaxies - III. [OIII] emission along the radio axis of PKS 0634-20, FOSBURY R.A.E., TADHUNTER C.N., BLAND J., DANZIGER I.J.....	955
 GALAXIES - FORMATION OF	
Dynamical friction and galaxy rotation - should mergers lead to slow rotation?, KASHLINSKY A.....	623
 GALAXIES - NUCLEI OF	
NGC 7172: an obscured active nucleus, SHARPLES R.M., LONGMORE A.J., HAWARDEN T.G., CARTER D.....	15
A study of the unidentified dust emission features near 10 μ m, AITKEN DAVID K., ROCHE PATRICK F.....	751
 GALAXIES - SEYFERT	
Diffuse Ly alpha emission around NGC 1275, FABIAN A.C., NULSEN P.E.J., ARNAUD K.A..	179
The Fe ⁺ region in active galactic nuclei, PENSTON M.V., FOSBURY R.A.E., BOKSENBURG A., WARD M.J., WILSON A.S.....	347
The ratio of X-ray-to-optical luminosity for active galactic nuclei, CHENG F.Z., DANESE L., DE ZOTTI G., LUCCHINI F.....	799
 GALAXY CLUSTERS	
Ram pressure stripping in a changing environment, TAKEDA H., NULSEN P.E.J., FABIAN A.C.....	261
3C 465: dynamics of a wide-angle-tail radio source, LEAHY J.P.....	323
Collisions between clusters of galaxies, MCGLYNN T.A., FABIAN A.C.....	709
N-body studies of compact groups of galaxies dominated by dark matter, BARNES JOSHUA.....	873
 GRAVITATION AND GRAVITATIONAL RADIATION	
Spheroidal gravitational lenses, BRAY IGOR.....	511
 INFRARED ASTRONOMY	
NGC 7172: an obscured active nucleus, SHARPLES R.M., LONGMORE A.J., HAWARDEN T.G., CARTER D.....	15
Infrared photometry and broadband flux distributions of southern R Coronae Borealis stars, KILKENNY D., WHITTET D.C.B.....	25
The infrared variability and nature of symbiotic stars - VI. Recent variations of RX Puppis, WHITELOCK P.A., MENZIES J.W., EVANS T.LLOYD, KILKENNY D.....	161
Far-infrared photometry of selected sources in the W28 region: M8, W28A2, W28SNR (G6.6-0.1), G7.5+0.1 and G8.1+0.2, LIGHTFOOT J.F., DEIGHTON D.W., FURNISS I., GLENCROSS W.M., HIRST C.J., JENNINGS R.E., POULTER G.....	197

Subject Index

Erratum: Predicted source counts for normal and active galaxies at 10-100 μ m, LOCK T.D., ROWAN-ROBINSON M.....	239
The 2.2 μ m stellar distribution in the galactic plane, EATON N., ADAMS D.J., GILES A.B.....	241
An investigation of the interstellar extinction - I. Towards dusty WC Wolf-Rayet stars, ROCHE PATRICK F., AITKEN DAVID K.....	481
Imaging and polarimetry of the Galactic Centre in the near-infrared, BAILEY J., HOUGH J.H., AXON D.J.....	661
A study of the unidentified dust emission features near 10 μ m, AITKEN DAVID K., ROCHE PATRICK F.....	751
INTERSTELLAR GRAINS	
High precision spectropolarimetry of stars and planets - III. The wavelength dependence of interstellar polarization, WOLSTENCROFT R.D., SMITH R.J.....	461
An investigation of the interstellar extinction - I. Towards dusty WC Wolf-Rayet stars, ROCHE PATRICK F., AITKEN DAVID K.....	481
Submillimetre observations of the cold dust halo of NGC 7027, GEE G., EMERSON J.P., ADE P.A.R., ROBSON E.I., NOLT I.G.....	517
A study of the unidentified dust emission features near 10 μ m, AITKEN DAVID K., ROCHE PATRICK F.....	751
INTERSTELLAR MEDIUM	
Ram pressure stripping in a changing environment, TAKEDA H., NULSEN P.E.J., FABIAN A.C.....	261
Comet capture from molecular clouds: a dynamical constraint on star and planet formation, CLUBE S.V.M., NAPIER W.M.....	575
Strong explosions in plane stratified media, FALLE S.A.E.G., GARLICK A.R., PIDSLEY P.H.....	925
The abundance of interstellar chlorine in the galaxy, HARRIS A.W., BROMAGE G.E.....	941
MAGELLANIC CLOUDS	
Planetary nebulae in the Magellanic Clouds, MORGAN D.H.....	633
MASERS	
VLBI observations of circumstellar shells around two OH/IR stars, NORRIS R.P., BOOTH R.S., DIAMOND P.J., NYMAN L.-A., GRAHAM D.A., MATVEYENKO L.I.....	435
METEORS	
The 'Geminid' asteroid (1983 TB) and its orbital evolution, FOX KEN, WILLIAMS IWAN P., HUGHES DAVID W.....	11P
MOLECULES	
CO emission from fragmentary molecular clouds: a model applied to observations of M17 SW, MARTIN H.M., SANDERS D.B., HILLS R.E.....	35
Formaldehyde in the W3 molecular clouds, COHEN R.J.....	101
MOON	
Constants related to the moon, JEFFREYS HAROLD.....	229
NEBULAE - GASEOUS	
CO emission from fragmentary molecular clouds: a model applied to observations of M17 SW, MARTIN H.M., SANDERS D.B., HILLS R.E.....	35
Formaldehyde in the W3 molecular clouds, COHEN R.J.....	101
Far-infrared photometry of selected sources in the W28 region: M8, W28A2, W28SNR (G6.6-0.1), G7.5+0.1 and G8.1+0.2, LIGHTFOOT J.F., DEIGHTON D.W., FURNISS I., GLENCROSS W.M., HIRST C.J., JENNINGS R.E., POULTER G.....	197
Emission coefficients for gaseous nebulae: three-level atom approximations, MCCALL MARSHALL L.....	253
The remarkable blue excess in the spectrum of the cometary nebula PP85, LOPEZ J.ALBERTO.....	37P
NEBULAE - PLANETARY	
Two-frequency VLA observations of compact planetary nebulae, ISAACMAN RICHARD.....	399
Submillimetre observations of the cold dust halo of NGC 7027, GEE G., EMERSON J.P., ADE P.A.R., ROBSON E.I., NOLT I.G.....	517
Planetary nebulae in the Magellanic Clouds, MORGAN D.H.....	633

Subject Index

NEBULAE - REFLECTION

An optical polarization study of NGC 2068, MANNION M.D., SCARROTT S.M..... 905

NEUTRON STARS

Spectral and temporal features in bursts from 2S 1636-536 observed with EXOSAT,
TURNER M.J.L., BREEDON L.M..... 29P

PHOTOMETRY - NON-STELLAR

Mass-to-light distributions for binary spiral galaxies, BLACKMAN C.P., VAN MOORSEL
G.A..... 91
Far-infrared photometry of selected sources in the W28 region: M8, W28A2, W28SNR
(G6.6-0.1), G7.5+0.1 and G8.1+0.2, LIGHTFOOT J.F., DEIGHTON D.W., FURNISS I.,
GLENCROSS W.M., HIRST C.J., JENNINGS R.E., FOULTER G..... 197

PHYSICAL PROCESSES

Extended radio jets and compact cores in quasars, SAIKIA D.J..... 231
Self-gravity and the global structure of accretion discs, ABRAMOWICZ MAREK A.,
CURTIS ANNA, SCHWARZENBERG-CZERNY ALEXANDER, WILSON R.E..... 279
Pulsar polarization as a direct consequence of the emission process, BJORNSSON
CLAES-INGVAR..... 293
Post-collapse evolution and gravothermal oscillation of globular clusters,
BETTWIESER ERICH, SUGIMOTO DAIICHIRO..... 493
The Rayleigh-Taylor instability in astrophysical fluids, ALLEN A.J., HUGHES P.A..... 609
The effect of a circumstellar medium on the evolution of young remnants of Type II
supernovae, ITOH HIROSHI, FABIAN ANDREW C..... 645
The dynamical stability of differentially rotating discs with constant specific
angular momentum, PAPALOIZOU J.C.B., PRINGLE J.E..... 721
The Kelvin-Helmholtz instability for relativistic particle beams - I. Stability
analyses in the time and space domains for vortex-sheet flows, BIRKINSHAW M..... 887
Strong explosions in plane stratified media, FALLE S.A.E.G., GARLICK A.R., PIDSLEY
P.H..... 925

POLARIZATION OF STARLIGHT

High precision spectropolarimetry of stars and planets - III. The wavelength
dependence of interstellar polarization, WOLSTENCROFT R.D., SMITH R.J..... 461
Imaging and polarimetry of the Galactic Centre in the near-infrared, BAILEY J.,
HOUGH J.H., AXON D.J..... 661
An optical polarization study of NGC 2068, MANNION M.D., SCARROTT S.M..... 905

PULSARS

Pulsar polarization as a direct consequence of the emission process, BJORNSSON
CLAES-INGVAR..... 293

QUASARS

Further spectroscopic observations of the QSO PKS 0528-250, CHEN JIAN-SHENG,
MORTON DONALD C..... 167
Extended radio jets and compact cores in quasars, SAIKIA D.J..... 231
Circular and linear polarization variations of compact radio sources, KOMESAROFF
M.M., ROBERTS J.A., MILNE D.K., RAYNER P.T., COOKE D.J..... 409
Kiloparsec scale structure in the hotspots of 3C 196, LONSDALE C.J..... 545
The ratio of X-ray-to-optical luminosity for active galactic nuclei, CHENG F.Z.,
DANESE L., DE ZOTTI G., LUCCHINI F..... 799
Hotspots and radio lobes of quasars, SWARUP G., SINHA R.P., HILLDRUP K..... 813
Collimation of extragalactic jets: evidence from hotspots, BANHATTI D.G..... 7P

RADIO ASTRONOMY

CO emission from fragmentary molecular clouds: a model applied to observations of
M17 SW, MARTIN H.M., SANDERS D.B., HILLS R.E..... 35
Formaldehyde in the W3 molecular clouds, COHEN R.J..... 101
The spindle-like galaxies UGC 7576 and II Zw 73, SCHECHTER PAUL L., SANCISI R.,
VAN WOERDEN HUGO, LYND S.C.R..... 111
Extended radio jets and compact cores in quasars, SAIKIA D.J..... 231
3C 465: dynamics of a wide-angle-tail radio source, LEAHY J.P..... 323
Radio observations of the north equatorial polar cap at 38 MHz, MILOGRADOV-TURIN
JELENA..... 379
Two-frequency VLA observations of compact planetary nebulae, ISAACMAN RICHARD..... 399
Circular and linear polarization variations of compact radio sources, KOMESAROFF
M.M., ROBERTS J.A., MILNE D.K., RAYNER P.T., COOKE D.J..... 409

Subject Index

VLBI observations of circumstellar shells around two OH/IR stars, NORRIS R.P., BOOTH R.S., DIAMOND P.J., NYMAN L.-A., GRAHAM D.A., MATVEYENKO L.I.....	435
Submillimetre observations of the cold dust halo of NGC 7027, GEE G., EMERSON J.P., ADE P.A.R., ROBSON E.I., NOLT I.G.....	517
Kiloparsec scale structure in the hotspots of 3C 196, LONSDALE C.J.....	545
Very extended ionized gas in radio galaxies - II. An optical and radio study of PKS 0349-27, DANZIGER I.J., FOSBURY R.A.E., GOSS W.M., BLAND J., BOKSENBERG A.....	589
Hotspots and radio lobes of quasars, SWARUP G., SINHA R.P., HILLDRUP K.....	813
New southern radio binaries, SLEE O.B., HAYNES R.F., WRIGHT ALAN E.....	865
The Kelvin-Helmholtz instability for relativistic particle beams - I. Stability analyses in the time and space domains for vortex-sheet flows, BIRKINSHAW M.....	887
Very extended ionized gas in radio galaxies - III. [OIII] emission along the radio axis of PKS 0634-20, FOSBURY R.A.E., TADHUNTER C.N., BLAND J., DANZIGER I.J.....	955
Collimation of extragalactic jets: evidence from hotspots, BANHATTI D.G.....	7P
RELATIVITY	
The Rayleigh-Taylor instability in astrophysical fluids, ALLEN A.J., HUGHES P.A....	609
SOLAR SYSTEM	
Comet capture from molecular clouds: a dynamical constraint on star and planet formation, CLUBE S.V.M., NAPIER W.M.....	575
SPECTROSCOPY	
Measurement of relative oscillator strengths for MnI. Transitions from levels in the range $0eV < X < 3eV$, BOOTH A.J., BLACKWELL D.E., PETFORD A.D., SHALLIS M.J....	147
Emission coefficients for gaseous nebulae: three-level atom approximations, MCCALL MARSHALL L.....	253
Identifications of FeXVII and NiXIX in solar flares based on isoelectronic extrapolations, JUPEN C.....	1P
Collisional excitation rates for transitions between the fine structure levels of the ground term of Ne^{3+} , BUTLER K., MENDOZA C.....	17P
STARS - BINARY	
Radiation of accretion discs: the eclipses, SCHWARZENBERG-CZERNY A.....	57
Binary encounters - III. Fly-bys, MIKKOLA SEPPO.....	75
Asymmetric light curves of the contact binary AB Andromedae, BELL S.A., HILDITCH R.W., KING D.J.....	123
Contact and near-contact binary systems - I. FT Lupi, HILDITCH R.W., KING D.J., HILL GRAHAM, FOECKERT R.....	135
IUE observations of two extremes among contact binaries: AM Ursae Majoris and SW Lacertae, RUCINSKI S.M., BRUNT C.C., PRINGLE J.E., VILHU O.....	309
A double grid of accretion disc model spectra for cataclysmic variable stars, WADE RICHARD A.....	381
A revised ephemeris for the pulsating hydrogen-deficient star BD +13° 3224 (V652 Her), KILKENNY D., LYNAS-GRAY A.E.....	673
Binary modulation and transient periodic variations in X-ray emission from the AM Her binary H 0139-68, SINGH K.P., AGRAWAL P.C., RIEGLER G.R.....	679
Star-planet systems as possible progenitors of cataclysmic binaries, LIVIO MARIO, SOKER NOAM.....	763
On the masses of the white dwarfs in cataclysmic variables, LIVIO MARIO, SOKER NOAM	783
New southern radio binaries, SLEE O.B., HAYNES R.F., WRIGHT ALAN E.....	865
STARS - CLUSTERS OF	
Rotational velocities of stars in IC 4756 and the calibration of intermediate band photometry for A stars, SCHMIDT EDWARD G., FORBES DOUGLAS.....	83
M and S stars in LMC globular clusters, EVANS T.LLOYD.....	447
Post-collapse evolution and gravothermal oscillation of globular clusters, BETTWEISER ERICH, SUGIMOTO DAIICHIRO.....	493
The age of the globular cluster NGC 288, PENNY A.J.....	559
STARS - FORMATION OF	
The chemical evolution of spiral galaxies: the Galaxy, M31, M33, M83 and M101, DIAZ A.I., TOSI M.....	365
STARS - MASS LOSS FROM	
Infrared photometry and broadband flux distributions of southern R Coronae Borealis stars, KILKENNY D., WHITTET D.C.B.....	25

Subject Index

VLBI observations of circumstellar shells around two OH/IR stars, NORRIS R.P., BOOTH R.S., DIAMOND P.J., NYMAN L.-A., GRAHAM D.A., MATVEYENKO L.I.....	435
Observations of narrow absorption components in the ultraviolet spectrum of Zeta Ophiuchi, HOWARTH IAN D., PRINJA R.K., WILLIS A.J.....	525
The effect of a circumstellar medium on the evolution of young remnants of Type II supernovae, ITOH HIROSHI, FABIAN ANDREW C.....	645
Star-planet systems as possible progenitors of cataclysmic binaries, LIVIO MARIO, SOKER NOAM.....	763
STARS - PHOTOMETRY OF	
Infrared photometry and broadband flux distributions of southern R Coronae Borealis stars, KILKENNY D., WHITTET D.C.B.....	25
Rotational velocities of stars in IC 4756 and the calibration of intermediate band photometry for A stars, SCHMIDT EDWARD G., FORBES DOUGLAS.....	83
Asymmetric light curves of the contact binary AB Andromedae, BELL S.A., HILDITCH R.W., KING D.J.....	123
Contact and near-contact binary systems - I. FT Lupi, HILDITCH R.W., KING D.J., HILL GRAHAM, POECKERT R.....	135
The infrared variability and nature of symbiotic stars - VI. Recent variations of RX Puppis, WHITELOCK P.A., MENZIES J.W., EVANS T.LLOYD, KILKENNY D.....	161
The age of the globular cluster NGC 288, PENNY A.J.....	559
BVJHK observations of the dwarf Cepheid SZ Lynx, FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R.....	853
STARS - ROTATION OF	
Rotational velocities of stars in IC 4756 and the calibration of intermediate band photometry for A stars, SCHMIDT EDWARD G., FORBES DOUGLAS.....	83
Absorption line profiles for 39 rapidly rotating stars, STOECKLEY THOMAS R., CARROLL RUSSELL W., MILLER ROBERT D.....	459
STARS - SPECTROSCOPY OF	
M and S stars in LMC globular clusters, EVANS T.LLOYD.....	447
Absorption line profiles for 39 rapidly rotating stars, STOECKLEY THOMAS R., CARROLL RUSSELL W., MILLER ROBERT D.....	459
Observations of narrow absorption components in the ultraviolet spectrum of Zeta Ophiuchi, HOWARTH IAN D., PRINJA R.K., WILLIS A.J.....	525
The remarkable blue excess in the spectrum of the cometary nebula PP85, LOPEZ J. ALBERTO.....	37P
STARS - STRUCTURE AND EVOLUTION OF	
The termination of the asymptotic giant branch phase imposed by helium shell flashes - description and conclusions, TUCHMAN Y.....	215
Star-planet systems as possible progenitors of cataclysmic binaries, LIVIO MARIO, SOKER NOAM.....	763
STARS - SYMBIOTIC	
The infrared variability and nature of symbiotic stars - VI. Recent variations of RX Puppis, WHITELOCK P.A., MENZIES J.W., EVANS T.LLOYD, KILKENNY D.....	161
STARS - VARIABLE	
Radiation of accretion discs: the eclipses, SCHWARZENBERG-CZERNY A.....	57
The termination of the asymptotic giant branch phase imposed by helium shell flashes - description and conclusions, TUCHMAN Y.....	215
A double grid of accretion disc model spectra for cataclysmic variable stars, WADE RICHARD A.....	381
A revised ephemeris for the pulsating hydrogen-deficient star BD +13° 3224 (V652 Her), KILKENNY D., LYNAS-GRAY A.E.....	673
Star-planet systems as possible progenitors of cataclysmic binaries, LIVIO MARIO, SOKER NOAM.....	763
On the masses of the white dwarfs in cataclysmic variables, LIVIO MARIO, SOKER NOAM	783
An X-ray survey of beta Cephei stars, AGRAWAL P.C., SINGH K.P., RIEGLER G.R., STERN R.A.....	845
BVJHK observations of the dwarf Cepheid SZ Lynx, FERNLEY J.A., JAMESON R.F., SHERRINGTON M.R.....	853
SUN	
Identifications of FeXVII and NiXIX in solar flares based on isoelectronic extrapolations, JUPEN C.....	1P

Subject Index

SUPERNOVAE AND SUPERNOVA REMNANTS

The effect of a circumstellar medium on the evolution of young remnants of Type II supernovae, ITOH HIROSHI, FABIAN ANDREW C.....	645
Strong explosions in plane stratified media, FALLE S.A.E.G., GARLICK A.R., PIDSLEY P.H.....	925
Einstein X-ray observations of the supernova remnant HB3, VENKATESAN D., LEAHY D.A. GALAS C.M.F., NARANAN S., LONG K.....	25P

ULTRAVIOLET ASTRONOMY

Diffuse Ly alpha emission around NGC 1275, FABIAN A.C., NULSEN P.E.J., ARNAUD K.A..	179
IUE observations of two extremes among contact binaries: AW Ursae Majoris and SW Lacertae, RUCINSKI S.M., BRUNT C.C., PRINGLE J.E., VILHU O.....	309
Observations of narrow absorption components in the ultraviolet spectrum of Zeta Ophiuchi, HOWARTH IAN D., PRINJA R.K., WILLIS A.J.....	525
The abundance of interstellar chlorine in the galaxy, HARRIS A.W., BROMAGE G.E.....	941

X-RAY ASTRONOMY

X-ray cooling flows in isolated elliptical galaxies, NULSEN P.E.J., STEWART G.C., FABIAN A.C.....	185
Binary modulation and transient periodic variations in X-ray emission from the AM Her binary H 0139-68, SINGH K.P., AGRAWAL P.C., RIEGLER G.R.....	679
The ratio of X-ray-to-optical luminosity for active galactic nuclei, CHENG F.Z., DANESE L., DE ZOTTI G., LUCCHINI F.....	799
An X-ray survey of beta Cephei stars, AGRAWAL P.C., SINGH K.P., RIEGLER G.R., STERN R.A.....	845
Einstein X-ray observations of the supernova remnant HB3, VENKATESAN D., LEAHY D.A. GALAS C.M.F., NARANAN S., LONG K.....	25P
Spectral and temporal features in bursts from 2S 1636-536 observed with EXOSAT, TURNER M.J.L., BREEDON L.M.....	29P